

Claims

1. A system for communicating data between two protective relays monitoring an electric power system, comprising:  
first and second communication channels extending between first and second protective relays operating on a power line portion of an electric power system, for communication of protection and control information between the relays;

means applying data to be transmitted from the first relay to the second relay along both first and second communication channels; and

a switch at the second relay connecting one selected communication channel such that processed data from the connected communication channel controls outputs of the second relay, the switch being responsive to an indication that the selected communication channel is faulty to switch to connecting said second communication channel, thereby minimizing any delay in continuing to receive data from the first relay.

2. A system of Claim 1, wherein the first and second communication channels are substantially identical.

3. A system of Claim 1, wherein the first and second communication channels are not identical.

4. A system of Claim 1, wherein the data transmitted on both communication channels undergoes alignment, filtering and logic processing so that the data on both communication channels is processed identically.

5. A system of Claim 1, wherein the transmittal of communication between the first and second relays is in both directions, and wherein both relays have a switch which operates in response to a faulty communication channel when the relays are receiving data.